

# IMAGE SENSOR WITH IMPROVED DYNAMIC RANGE BY APPLYING NEGATIVE VOLTAGE TO UNIT PIXEL

## ABSTRACT OF THE DISCLOSURE

The present invention is to provide an image sensor, including: a  
5 semiconductor substrate of a first conductive type: a peripheral circuit formed on a first region of the semiconductor substrate, wherein a ground voltage level is applied to the first region; a unit pixel array having a plurality of unit pixels formed on a second region of the semiconductor substrate, wherein the first region is isolated from the second region and wherein a negative voltage level is applied to the second region; and a negative voltage generator for providing the negative voltage for the second region.  
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